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SWAZILAND PRIMARY CURRICULUM DEVELOPMENT

Revised PROP

by

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BACKGROUND AND PROJECT DESCRIPTION

A. Background

In its Third National Development Plan (1978-1982), the Government of Swaziland recognizes the right of every Swazi child to education. The Plan reaffirms the commitment of the GOS to the goal of universal primary education, which was envisioned when the GOS accepted the report of the National Education Commission in 1976.

The Third Plan specifies that the GOS will be guided by the principle of social demand in its efforts to widen access to primary education. Together with the expansion of primary school enrollment, the GOS hopes to restructure the content of primary school education in order:

- to reorient the curricula at the primary level to counteract the current non-technological bias and to enable school leavers to move more rapidly into employment opportunities which are open to them, and
- to raise the quality of school education, improving performance at all levels and reducing the high incidence of repetition and dropout.

The GOS's concern with the revision of primary education to make it more responsive to national goals and Swazi culture came with national independence in 1968. Substantial efforts were begun during the period covered by the Second National Development Plan (1973-1977). The revision of primary education was required in order to address the needs of the majority of Swazi children who are obliged to begin earning a living after primary school without any formal schooling.

In pursuit of these educational objectives, the GOS is undertaking a program of curriculum development. This involves efforts at both the primary and secondary levels -- the latter activity receiving UNESCO assistance. It includes preparing curricula and related instructional materials and implementing a scheme for the training of primary and secondary school teachers. The GOS's curriculum development activities are inter-related and have been assisted by a number of external agencies, including AID, UNESCO, ODM, SIDA, the World Bank, and the British Council. The coordination of the curriculum development process has become even more necessary with the GOS's plans, following attainment of universal primary education in 1985, to restructure primary and junior secondary education to provide a ten-year cycle of basic education for every Swazi child. The three-year post-primary course foreseen is to continue the practical orientation of primary education for preparing children to take up available employment opportunities.

AID's assistance, which began in 1972, has been directed toward curriculum development at the primary school level. A Project Agreement (see Annex A) was signed by AID and the GOS, which was aimed at completing preliminary steps toward developing and implementing a program of primary curriculum development. Assistance was provided to the Swaziland Ministry of Education (MOE) through a contract signed in February 1973 between AID and the American Institute for Research (AIR) (see Annex B). The contract provided for the services of a Curriculum Advisor, who was assigned to Swaziland for a two-year period (1973-1975). During this period a number of important steps were taken to establish a base for carrying out curriculum development. Major accomplishments included the establishment of a

set of preliminary primary school "outcomes" (i.e. observable behaviors), early steps toward the establishment of the Primary Curriculum Unit (PCU), which became operational in 1974, and the completion of a National Primary School Curriculum Plan (see Annex C). The latter presented specific plans for policy making; preparation, production and distribution of teaching/learning materials; pre-service/in-service teacher training; progress reporting; and training of PCU staff. The Plan also presented detailed estimates of the personnel and fiscal requirements of the program. The GOS requested AID and the World Bank to assist in carrying out the Plan. AID's assistance was provided through an eight-year Primary Curriculum Development Project (1975-1983) to be undertaken in collaboration with the GOS. AID signed a contract with Eastern Michigan University (EMU) (see Annex D) to implement its technical assistance. In April 1978, midway through the project, an external evaluation was undertaken to provide data for a decision whether AID would fund the second phase of the Project (see Annex E). The insights gained from this evaluation are incorporated into this Project Paper, which is a plan for Phase Two (1979-1983) of the eight-year project.

II. B. Project Description

The goal of AID's human resources development sector, to which this project contributes, is to accelerate the development of Swaziland's human resources within the framework of its national development goals by improving the quality of primary education and by reorienting the content of primary education toward the needs and circumstances of the Swazi environment.

The purpose of the project is to establish an institutional national capacity for developing primary curriculum reflective of Swaziland's national goals for education. This purpose, as originally conceived in the PROP (see Annex F) will not change during Phase Two of the project.

At present, midway through the project, significant progress has been made toward achieving this purpose. A Primary Curriculum Unit (PCU) has been established; facilities have been built and furnished; and the project has been staffed by 15 professional and 17 support staff from the Ministry of Education (MOE), and aided by 6 US technical assistants. The PCU is a recognized and integral component of the MOE. In the curriculum development process, primary school "outcomes" have been written and approved for the first seven years of school (Grades 1 and 2, and Standards 1 - 5). Measurable instructional objectives have been written and materials drafted for Grades 1 and 2 to various stages of completion in science, siSwati, math and environmental studies. Materials, consisting of teachers' guides and students' workbooks have been pilot tested and are ready for publication in Grade 1 science and siSwati. Six Swazi staff members are in or have completed one year of participant training at Eastern Michigan University. In terms of the outputs stated in the PROP, a "functioning curricu-

lum development system" is in place.

The project is behind schedule in three aspects: materials design and preparation, evaluation and teacher education. Whereas the PROP established as an outcome the completion of one grade-level of materials in the necessary subjects each year, (i.e. Grade 1 materials would be in the schools in January 1976), in fact, Grade 1 materials will not be in the schools before January 1980. Grade 2 materials are still being drafted and tested, and Standard 1 (Grade 3) materials are just getting under way. The evaluation component staff will soon be at the point of evaluating Grade 1 materials (December 1978). Teacher education activities have also progressed at a slower rate, but Teacher Leaders in the Teacher Innovation and Dissemination Centers (TIDCs) are on the job, and working with the 16 pilot school teachers who are testing the PCU materials.

These delays have been due primarily to an over-ambitious PROP, understaffing, and the absence of initiative and direction on all fronts -- the PCU, the MOE and AID/S.

During the past year (1978) this situation has been remedied by a change in personnel at the PCU, including a new Director and US technical advisors, and by moving the PCU organizationally from under the Principal of William Pitcher Teacher Training College, the adjacent teacher training school, to under the office of the Chief Inspector Primary, who reports directly to the Director and Permanent Secretary of Education. Communication between the PCU and the MOE has improved noticeably. Consequently, collaborative action between these two parties with heightened support from AID/S has given the project impetus to move toward its purpose.

The current stock-taking and revision of planned inputs and outputs, based on the lessons of experience, is timely. During Phase One of the project, a solid foundation has been laid, an institutional capacity formed, and feasible production rates determined. During Phase Two, with more reasonably planned inputs and outputs, the project purpose can be attained.

The chart below summarizes the progress during Phase One and the plans for Phase Two in terms of project input and outputs (the sector goal and project purpose remain virtually the same during the two phases).

	PHASE ONE (1975-1979)	PHASE II (1979-1983)
OUTPUTS:	<p>Institutional capability to:</p> <ul style="list-style-type: none"> link curriculum development activities of PCU with those of education system; and prepare and produce curriculum materials. <p>PCU staff trained and on the job:</p> <ul style="list-style-type: none"> 15 professionals 17 support <p>PCU staff certified (work completed):</p> <ul style="list-style-type: none"> 4 B.A. degrees (Education) 2 M.A. degrees (Education) <p>Materials produced:</p> <ul style="list-style-type: none"> Ready for publication: <ul style="list-style-type: none"> science, siSwati (Gr. 1) In draft: <ul style="list-style-type: none"> math, environ. studies (Gr. 1 & 2) science, siSwati (Gr. 2) 	<p>Institutional capability to:</p> <ul style="list-style-type: none"> distribute and maintain materials nationwide; coordinate curriculum development activities with pre- and in-service training; and evaluate and report effectiveness of curriculum and materials <p>PCU staff trained and on the job:</p> <ul style="list-style-type: none"> 12 additional professionals <p>PCU staff certified:</p> <ul style="list-style-type: none"> 13 additional B.A. degrees 4 additional M.A. degrees 1 person/year toward Ed.D. <p>Materials produced:</p> <ul style="list-style-type: none"> Published and distributed: <ul style="list-style-type: none"> science, siSwati (Gr. 1-4) maths (Gr. 1-3) Ready for publication: <ul style="list-style-type: none"> environmental studies, English, arts (Gr. 1) maths (Gr. 4) science, siSwati (Gr. 5) In draft: <ul style="list-style-type: none"> maths (Gr. 5) environ. studs. (Gr. 3,4) English, arts (Gr. 2-4)

	PHASE ONE	PHASE TWO
INPUTS:	<p>AID:</p> <p>Technical Assistance:</p> <p>___p/y techn assts. ___p/y consultants</p> <p>Participant training:</p> <p>6 p/y in US</p> <p>Construction:</p> <p>6 staff houses</p> <p>Commodities:</p> <p>PCU office and production equipment TIDC furnishings Resource center materials Office and production supplies</p>	<p>AID:</p> <p>Technical Assistance:</p> <p>32 p/y tech. assts. 4 p/y consultants</p> <p>Participant training:</p> <p>17 p/y in US 30 p/y in Swaziland 27 p/m in Africa</p> <p>Construction:</p> <p>2 staff houses Curriculum resource center</p> <p>Commodities:</p> <p>Additional production equipment Computer data recording and storage unit Resource center materials Office and production supplies 5 vehicles</p>
GOS:	<p>PCU staff (MOE posts): 32</p> <p>Commodities:</p> <p>Materials publication Equipment maintenance Vehicle maintenance</p>	<p>PCU staff (MOE posts): 40</p> <p>Commodities:</p> <p>Materials publication Equipment maintenance Vehicle maintenance Exam scoring 4 vehicles</p>
Other:	<p>PCU facilities: (IBRD) 4 TIDCs: (IBRD) 8 vehicles (IBRD)</p>	

II. C. Project Strategy

1. Project Structure and Functions

The direct beneficiaries of the project are the Swazi primary school students nationwide, while the indirect beneficiaries are district level and ministry officials, all of whose efforts to provide higher quality primary education will be enhanced by the introduction of improved curricula and materials. (See Social Soundness Analysis section for identification of beneficiaries in this project).

In order to improve primary school education, the project will institute a competent curriculum development staff within the MOE. The strategy for accomplishing this is as follows:

(1) to train a total of 27 Swazis as curriculum development specialists through on- the-job training by US advisors and other qualified consultants, and through participant training at the University of Botswana and Swaziland, selected curriculum development training centers in Africa, and at a US university (e.g. Eastern Michigan University);

(2) to involve district level administrators (District Education Officers (DEO), Inspectors, PCU Teacher Leaders), Teacher Educators from the three teacher training colleges, and the School of Education at the University of Botswana and Swaziland (UBS) and teachers in the materials design process;

(3) to establish a materials-approval procedure that involves the MOE and other representatives of the education system;

(4) to test materials in pilot schools before implementing

them on a nationwide level;

(5) to support actively the movement (as stated in the Third National Development Plan) toward integration of primary and secondary curriculum development units in the MOE and the coordination of curriculum development and teacher training activities in Swaziland.

The role of US advisors in carrying out this strategy will be to work daily with the Swazi curriculum development specialists in:

(a) demonstrating skills of curriculum planning, materials design and preparation, production, evaluation and diffusion, and to give continual feedback and assistance in their practice of these skills. The US advisors' role in the curriculum activities will evolve from an active collaborative one to an advisory/ consulting role over the life of the project;

(b) cooperating with the Swazi staff in designing and holding curriculum development and materials design workshops that entail the participation of teachers and administrators; and

(c) participating in negotiations of the curriculum development staff with the MOE and other education offices whose authorization and operations pertain to curriculum development activities (e.g. arranging for approval procedures, teacher education activities, materials implementation logistics, etc.). Again, the US advisors' role will move from a collaborative to a more consultative role.

This strategy, except for the increased initiative of US advisors in the early years of Phase Two and a heavier use of other African curricula as model and prototype materials, is a continuation of that proposed for Phase One of the project (1975-1979). Thus, its implementation will result from the differentiated functions of the PCU

that are already operating: (1) management, (2) materials design and preparation, (3) production, (4) teacher education, and (5) evaluation.

The responsibilities of staff members in each of these functions will be as follows:

(1) Management:

- (a) Conceptualize the on-going development of the curriculum;
- (b) Direct and coordinate activities of the four other PCU functions;
- (c) Work directly with the MOE (reporting to the Chief Primary Inspector) in coordinating the activities of the PCU with those of the Ministry, teacher training institutions, and district education offices;
- (d) Report progress and make requests, as required, to the GOS and USAID;
- (e) Maintain accounts of inputs and achievement of outputs;
- (f) Administer participant training activities (authorizations, contracts, selection of trainees, etc.).
- (g) Link PCU activities to those of other related donor agencies.

(2) Materials Design and Preparation:

- (a) Initiate and maintain the process of curriculum design and approval at all grade levels in primary school (grades 1-7);
- (b) Plan and monitor a schedule of design activities, coordinating it with the required interaction of teacher educators in providing workshops and other training activities, with evaluation in providing testing and feedback services, with production, and with management;

- (c) In collaboration with the teacher education component, direct workshops for teachers and administrator. (see above) in curricula and materials design;
- (d) Prepare original and revised drafts of materials for production;
- (e) Participate in materials approval procedures as required;
- (f) Develop and maintain a curriculum resource center, containing curricula and materials from other African and non-African programs. These will be used primarily in the curriculum design process, but will be accessible to others at the PCU and others in the education community.

(3) Production:

- (a) In collaboration with design and preparation staff, design the layout of teacher guides, workbooks, evaluation sheets, progress reports and other materials;
- (b) Illustrate materials and supply photographs as required;
- (c) Produce PCU materials for use in pilot schools;
- (d) Produce reports, tests, handouts and other printed and photographic materials for management, evaluation and teacher education components of PCU;
- (e) Perform art and design, printing and photographic services for other departments of the MOE and other agencies of the GOS;
- (f) Maintain records of production;
- (g) Maintain and supplement production equipment and supplies as necessary.

(4) Teacher Education:

- (a) Direct workshops for teachers and administrators in curricula and materials design, in collaboration with the design and preparation staff;
- (b) Design and implement additional in-service training sessions that entail the use of the new primary curriculum, in collaboration with teacher training colleges, university and district level education personnel;
- (c) Direct the activities of teacher leaders and other staff who manage teacher education activities at the four TIDCs (see Annex G);
- (d) Share feedback from teachers and district personnel with design and evaluation staffs;
- (e) Initiate and monitor for each PCU staff member, his/her individual participant training program, and coordinate this with management;
- (f) Assist teachers and administrators who participate in PCU training sessions (e.g. workshops and sessions at William Pitcher College) in getting appropriate credit for their progress.

(5) Evaluation:

- (a) Evaluate the effectiveness of PCU materials as used in pilot schools by directing the administration, scoring and analysis of (i) annual exams of students who have used the materials, and (ii) periodic questionnaires completed by teachers who

use the materials regarding their judgments on the value of the materials;

(b) Share the evaluation results with other PCU components (design, production, etc.) in a useful fashion;

(c) Provide information for the purposes of decision-making and task improvement to other PCU components and related groups as follows:

(i) Management: quantity of PCU outputs; effectiveness of outputs; characteristics of those using materials; and interactions between the various components of PCU and the entire education system involved in the testing of pilot materials.

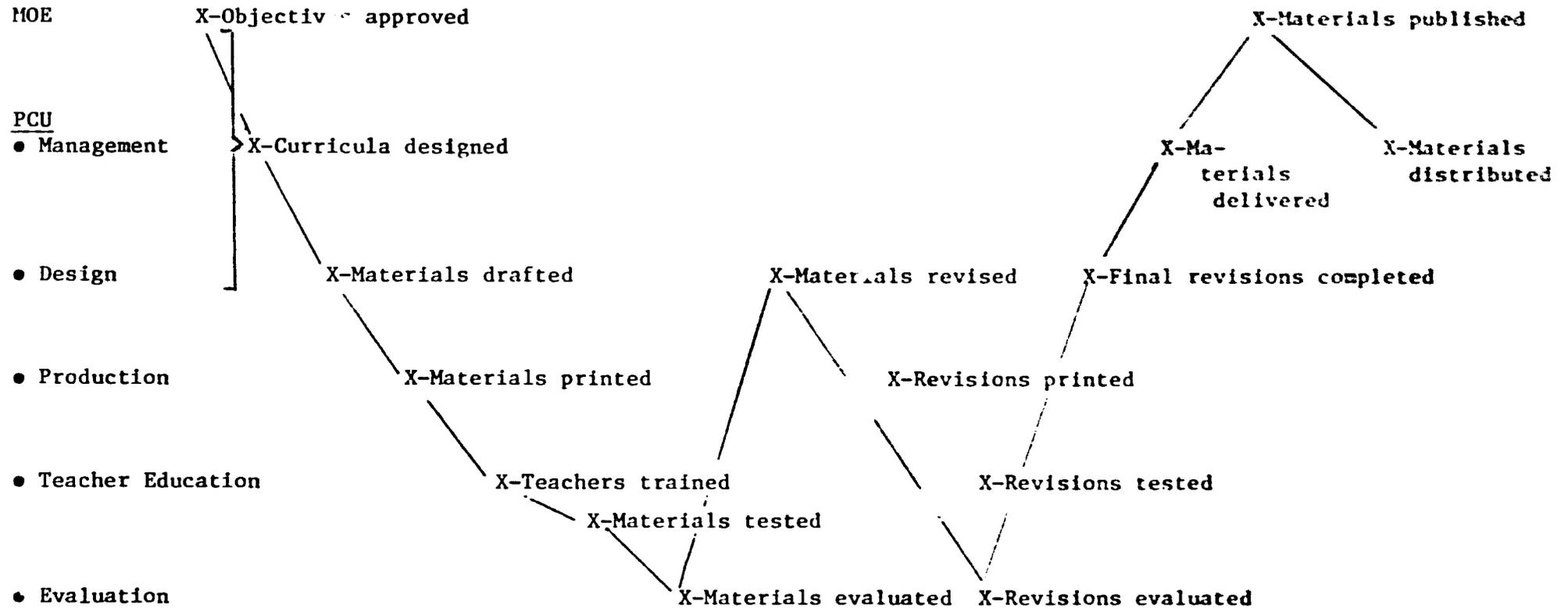
(ii) Materials Design and Preparation: effectiveness of materials; and teachers' students' and district administrators' reactions to materials.

(iii) Production: quantity and production deadlines; and adequacy of production quality.

(iv) Teacher educators and teachers: testing procedures, feedback procedures; requests for additional materials; and record-keeping in regard to materials.

(v) Students and parents: educational progress, examination taking skills; and feedback procedures.

This diagram illustrates the 5 PCU components (functions) whose activities have been described:



II.C.2. Curriculum Development

A school curriculum is essentially a plan for the organization of learning activities designed to achieve either an implicit or explicit set of learning objectives. A curriculum indicates what is to be taught, how it is to be taught, and when it is to be taught. There are a variety of philosophies behind the curriculum development process, but most commonly the process is seen to include not only the formulation of the curriculum plan but also the range of activities needed to implement and evaluate this plan. The process then embraces important functions like translating subject area knowledge into appropriate teaching/learning experiences, of designing and preparing instructional materials and aids to guide the teaching/learning experience, and devising ways to facilitate the teacher's understanding and use of the curriculum.

Quite typically, a new curriculum will rise or fall according to the appropriateness and quality of its instructional materials. Instructional materials play a major role in determining the direction, content, and methodology of the teaching/learning experience. This is readily apparent in a developing country where too often instructional materials are either in short supply or else totally absent in the classroom. The effects of this are amplified by the presence of untrained teachers, whose lack of knowledge in the subjects they are teaching necessitates an inordinate dependence on whatever instructional materials are available. The importance of instructional materials in the development of primary curriculum in a country like

Swaziland takes on a double importance: it is needed to define the new skills, attitudes, and knowledge resulting from the decision to reorient primary education to the needs of the Swazi environment and to help reduce the negative effects of the large number of untrained teachers in the nation's schools.

Another important variable in the curriculum development process is the strategy chosen for dissemination of new curricular aims, methods and materials. The PCU's strategy has two crucial features: one is the time-honored use of pilot schools in the curriculum development process as sources of formative data for the entire process; the other is the system of dissemination which makes use of teacher centers (TIDCs) as focal points for introducing the products of the curriculum development process as well as for recurrent training, monitoring, and evaluation of the implementation of the curriculum. The latter feature takes into account successful experience in other countries, especially the United Kingdom.

The primary curriculum development strategy in Swaziland, which the PCU is charged with developing, seeks to shape appropriate learning experiences for primary school instruction that will lead to realization of a set of Primary School Outcomes published by the MOE in 1976. This set of observable pupil behaviors, some 255 items, was formulated with broad community input (see Annex II for sample outcomes). These outcomes are divided according to achievements in the lower primary (first four years) and upper primary (last three years) levels and to

outcomes in three domains: cognitive, affective, and psychomotor. This set of outcomes became the basis for the formulation of a National Primary School Curriculum Plan (see Annex C). These two documents provide the policy directions for the curriculum development process. The PCU is responsible for devising instructional objectives, taking into account the scope and sequence of learning throughout the seven years of primary school. The list of primary school outcomes come under 12 subject area headings: self-learning, siSwati, English, mathematics, science, agriculture, social studies, domestic science, religious knowledge, music, physical education, and arts and crafts. The PCU will group these outcomes into six subject areas for implementation: siSwati, mathematics, English, science, practical arts, and, pending final MOE decision, environmental studies.

The curriculum development process and its important materials design and preparation component proceed according to the two diagrams on the following pages.

The use of instructional objectives and their subsequent development into learning modules represents a significant departure from the former way of organizing the curriculum. The latter was essentially a tightly-woven "scheme" of work made up of interlocking learning activities. The modular nature of the present design offers the possibility of greater flexibility, as component parts can be revised individually.

II.C.3. INSTITUTIONAL DEVELOPMENT

The project's strategy will rely upon the management's coordination of PCU curriculum development activities with those of other institutions in the education system, namely: (a) the MOE curriculum approval procedures; (b) the three teacher training colleges' (William Pitcher and Nazarene in Manzini and a new one to be established in Shiselweni) preparations of teachers and teacher-trainees to implement the new curricula; (c) the Teacher Innovation and Dissemination Centers' decentralized control of the materials diffusion and teacher supervision and support services; and (d) the MOE's anticipated reform of curriculum development activities in order to integrate those of primary with those of secondary levels.

(a) Prior to the commencement of this phase of the project, the MOE will reform the curriculum approval procedures so that there are 3 stages of approval: (a) approval of grade level objectives; (b) approval of first draft materials prior to their pilot testing; (c) approval of second draft materials prior to their final (second) evaluation and contingent on agreed-upon revisions from the approval committee and from the evaluation results.

Given that grade-level objectives have been approved, approval of materials will rest solely on their demonstrated effectiveness in helping students reach those objectives and in accordance with MOE policies. The members of the approval

committee will be the same for each of the three approval intervals for each grade level. These members, to be decided by the MOE, will include representatives from the MOE, the PCU, DEOs and teacher training faculties.

(b) Teachers will be prepared to use the new materials through collaboration of the teacher education component of the PCU and the William Pitcher Teacher Training College in-service education staff. This staff has been supported since 1973 by SIDA funds and UNESCO experts. Negotiations are under-way to continue this support throughout the life of the PCU/AID project. The responsibility for supervision and supporting teachers in the classrooms nationwide will be integrated into the boarder in-service teacher-training responsibility of William Pitcher College. This arrangement has been tentatively agreed to by the responsible personnel of the College, the MOE and the PCU.

(c) The continual preparation, support and supervision of teachers who are testing materials in pilot schools during the life of the project will be the responsibility of the four teacher leaders (one is assigned to the TIDC in each of the four education districts; see Annex I for map). The full-time occupation of these teacher leaders in the PCU diffusion and teacher education activities will constitute a decentralization of day-to-day responsibility for teacher education and evaluation activities. Nonetheless, these decentralized Teacher Leaders, who work in proximity and cooperation with District Education

Officers and Inspectors, will be in touch with the PCU staff in Manzini, through their own periodic visits to the PCU, and the regular visits of teacher education and evaluation staff members from the PCU.

(d) The Third Five-Year Plan (1978-82) calls for a coordination of primary and secondary curriculum development efforts in order to "ensure a more homogeneous approach to curriculum development" (Education Chapter, p. 6). The GOS foresees a revision of the Junior Secondary Course of Study to provide a continuation of the practical orientation of the new primary school curriculum. A 10-year cycle of basic education is planned. The PCU staff, under direction from management, will work throughout the life of the project to facilitate this integration. The PCU management will work in harmony with the management of the Secondary Curriculum Unit to advise the MOE on the structural arrangement for curriculum development.

II.C.4. Staff Development

The role of PCU staff will change during the second phase of the Project. Interaction between Swazi staff and U.S. technical advisers will become more collaborative with a view to making materials development less of a start-to-finish individual activity and more of a team effort involving different levels of expertise, subject area competence, and differentiation of functions. This approach will make possible more systematic use of people outside the PCU in the design and preparation process. More efficient use will be made of materials designed in other African countries that may be either wholly or partially appropriate for adaptation in Swaziland. There are five elements in the staff development strategy for Phase Two: (a) participant training, (b) the use of outside consultants, (c) the involvement of teachers in the preparation of materials, (d) support from a Curriculum Resource Center, and (e) affiliation with the African Curriculum Organization.

(a) The Project's purpose of creating a national capability for the development of primary school curriculum will require a substantial amount of participant training during the second phase of the Project, inasmuch as primary curriculum specialists do not exist in Swaziland. Six PCU staff members began training during the first phase.

Extensive use of in-country training is foreseen. Courses will be specially tailored to the needs of PCU staff, and the training schedule will take into account the constraints of time

and effort required by the immediate output objectives of materials production. The in-country training will be reinforced, when appropriate, with training in the U.S. or in another African country. Short visits of PCU staff to curriculum units in other African countries will be undertaken when judged appropriate.

The contractor will undertake to organize a comprehensive scheme of training for at least 19 PCU staff members that will lead toward degree certification and involve a mix of in-country and overseas study. In 1979, 13 persons will begin studies leading to a BA degree. This will include 6 designers, 1 teacher educator, 1 production manager, and 4 teacher leaders. Their programme of study will include 2 years of in-country training (24 hours credit) and 1 year in the United States (45 hours credit). In 1979, 4 PCU staff members will continue training that began in the first phase of the Project. These are 3 designers and 1 teacher educator. They will undertake specialized studies at the University of Botswana and Swaziland (UBS) leading to an MA. One person will be chosen to spend one year in the U. S. for doctoral study.

The in-country training scheme involves a cooperative venture between UBS and Eastern Michigan University (EMU), the details of which are now being finalized. EMU is making provision for the transfer of UBS credit to an EMU degree, for arrangements that 10-20 hours of EMU credit can be granted for PCU work-related experience, and for providing that a PCU staff member working for a BA can earn up to 30 credits by correspondence

Consequently, it is foreseen that 13 PCU staff members will complete or nearly complete within the second phase of the Project requirements for a BA degree through a UBS/EMU formula of studies that will require only one year being spent in the U. S.

During the second phase of the Project, it is planned that 6 individuals who began training in the first phase will either complete or nearly complete requirements for an MA degree in Education at UBS. Since UBS does not have specialized courses in primary curriculum development, PCU technical advisers will teach graduate level courses offered under the academic jurisdiction of UBS. These courses will be sequenced so as not to take PCU technical advisers away from their other functions beyond a minimal amount.

In order to make a wider contribution to the manpower requirements of the education sector, to create a pool of individuals with training in curriculum development for possible future deployment, and to ensure an optimal use of resources, the undergraduate courses taught by PCU technical advisers (a continuation of first phase activities) will be open to other participants. The MOE will be entitled to nominate two other participants for each new person to be nominated and trained for PCU. These individuals may be drawn from any other educational institution in the country, including the MOE, the teacher training colleges, the school inspectorate, and in-service units. They will not be eligible for overseas training under the Project's auspices.

(b) A total of 48 person-months of consultant time is foreseen for the second phase of the Project. This is required both for short-term expertise and the interaction effects with regular PCU staff who are responsible for developing the conceptual framework, teachers' guides, and children's materials for a sequential, multi-grade curriculum. The short-term consultants will be used either to provide specialized expertise in a subject area or to help in the writing or "fleshing out" of materials.

The contractor will recruit and hire consultants with the needed subject area and level of expertise for short-term assignments. This may include an initial assignment of 8-10 weeks and subsequent assignments of 4-6 weeks.

Consultants will be recruited from three sources: curriculum specialists from the U. S.; curriculum specialists from other African countries, for example, an appropriate individual from IPAR in the Cameroons, the Kenya Institute of Education, or the curriculum units in Ghana and Nigeria; or, from local sources of subject area expertise, which would include lecturers from UBS, William Pitcher Teacher Training College, and Nazarene Teacher Training College.

(c) As capacity of staff develops during the second phase, the PCU will experiment with ways to involve serving teachers in a team effort for the preparation of instructional materials. In 1980, the PCU will identify a group of 5-8 competent primary teachers to take part in a collaborative materials production

activity. The teachers will attend workshops dealing with the overview of PCU materials development and specific materials writing skills. During the workshops, they will be assigned a material to work on and receive guidance from PCU in their initial efforts. The material will be completed after they have returned to their schools. If the experiment is to be successful, these activities can be continued or even multiplied.

The PCU will also negotiate with William Pitcher and Nazarene Colleges to give credit for a pilot group of second-year teacher trainees to work as materials preparation assistants, either after school or during school holidays, to help PCU designers in the writing of materials.

(d) A Curriculum Resource Center will be built during the second phase of the Project. The unit is intended to provide resource support to guide the materials design/preparation activities of the PCU as well as to backstop the teacher education functions of the TIDCs. Additionally, the Curriculum Resource Center will serve William Pitcher College, Nazarene College, and UBS, where general library facilities are inadequate and collections of other learning resources, especially of African instructional materials, are virtually non-existent.

The Curriculum Resource Center is to be built on the site of the PCU. It will be a furnished facility of 500 m², to be built at a cost not to exceed \$. In 1979, the contractor will submit a building design for approval. Tenders will be invited for construction of the approved plans and work is to be completed

on the facility by early 1980.

A Curriculum Resource Adviser will be recruited and should arrive by mid-1979. The COS will provide a counterpart to work with the Adviser. The Adviser will undertake to provide the necessary training for the counterpart. They will be responsible for beginning to make acquisitions before the end of 1979 and for the cataloging and transfer of existing PCU materials to the new facility.

A total of \$120,000 is allocated for the acquisition of resource material, which will provide for a capacity of an estimated 25,000 items. The GOS will provide for recurrent acquisitions from 1983 onwards.

Beginning in 1980, the Curriculum Resource Center will undertake to identify and collect resources made from indigenous materials that have been produced by various educational projects in Swaziland and other countries. The indigenous resource material will serve as models for the development of instructional aids by teachers during in-service workshops at the TIDCs during the PCU materials diffusion process.

(e) In 1979, the PCU will become affiliated with the African Curriculum Organization, whose headquarters are in Accra, Ghana. This affiliation is necessary in order to make the primary curriculum development activities of Swaziland a part of the larger African network of curriculum developers and to provide a source of instructional materials produced elsewhere in Africa that could be adapted for use in Swaziland.

AID will fund the annual membership fees of approximately \$ in . In 19 AID will pay half and the GOS will pay half. In 198 the GOS will assume full responsibility for annual membership fees for that year and any additional years they wish to maintain their affiliation with this organization.

III. PROJECT ANALYSES

This project is the continuation of the Swaziland Primary Curriculum Development Project that has been in operation since January 1975. This project is proposed to continue toward the same goal and purpose as the previous one, with limited revisions in expected outputs and planned inputs. Much of the following analysis is derived from internal and external reports on Phase One (see Annexes E and), and on subsequent discussions between PCU, MOE and AID on how to improve the project during its second phase (1979-83).

III. A. Economic Feasibility

The project output, the Primary Curriculum Unit, is a necessary and critical input for assuring the increasing and continuing relevance of the educational system to the needs of a progressive, rapidly changing nation seeking efficiency and effectiveness in the development and application of the country's human resource capabilities to the opportunities and requirements generated by the local environment and the world-wide developments in all areas of human endeavour. The alternative, not continuing the primary school curriculum program, carries the costly and incalculable implication of a wastage in the development and relevance of Swaziland's basic human resource skills. Weakening of support for and the strength of the PCU will lead to an increasing divergence between the actual and potential development of those basic skills that are based upon the relevance of the primary school curriculum. In this sense, there is no alternative to the primary school curriculum program for a country seeking to realize the full potential and relevance of the basic skills and knowledge of its school age population as a necessary basis or input for pursuing broad social and economic national development goals.

In addition to the cost to the nation of a wastage in the development of human skills inherent in a less relevant primary school curriculum unit, there is the implicit inflationary cost of delaying this activity. From the perspective of time and

current inflation expectations, it is evident that the costliness of the project in nominal terms will increase over time. Thus, cost effectiveness, reducing wastage and inflation costs dictates the project activity at this time.

Resource inputs, adequate to the task, are viewed as optimal in terms of alternative cost considerations. Proposed project activities build upon previous work, Learning or "gearing up" costs are defrayed by access to available resources and experience financed by the preceeding GOS/AID/IBRD project in this area. The cost of developing a fully effective Swazi Primary Curriculum Unit by the input of expertise carries the implication of efficiency and cost savings relative to the output of a lesser skill. Maintaining a balance between GOS staff participation and outside advisers serves two purposes; keeping costs down while assuring continuity beyond the withdrawal of external assistance.

III. B. SOCIAL SOUNDNESS ANALYSIS

An appraisal of the social benefits associated with the outcomes of this project runs into difficulty when making an absolute distinction between direct and indirect beneficiaries. The purpose of the continuation of this project is to establish an institutionalized national capacity for the development of primary school curriculum. This suggests that the direct beneficiaries would be the educational personnel who would make up this institution, and the indirect beneficiaries would be the primary school pupils who eventually benefit from a new and more relevant curriculum. If a curriculum development project were designed analogously to the model of a traditional teacher training project such a direct/indirect distinction would be clear cut. But the design of the PCU project provides for the immediate delivery to primary schools of curriculum development services -- especially instructional materials that have been designed and produced locally. These materials are used in schools as soon as they are produced, with a nationwide level of dissemination foreseen during the lifetime of the project. This strategy identifies the direct beneficiary of the project as the pupils of primary schools.

From either point of view, it is clear that the curriculum development capacity being created by the project will have an immediate impact, either directly or indirectly, on the primary school population which will grow progressively larger throughout the duration of the project and during the years after the project.

The Rural Poor and Basic Needs

The population of Swaziland, as in other African countries, is divided between modern and traditional sectors. Only 10% of the Swazi population live in communities of 10,000 or more people. This means that 90% of the population live in the traditional socio-economic circumstances of rural areas. Most of these people engage in subsistence agriculture with little or no income from cash crops. Their average per capita income is about \$70 per year. As such, the vast majority of the Swazi population could be classified as living in "absolute" poverty, according to current international definitions.

The present direction of development assistance policy being followed by a number of agencies, including AID, seeks to find more direct solutions to the needs of the rural poor majority. AID's commitment to this direction is predicated on a Congressional mandate and is being implemented in terms of a "basic needs" approach to development. This approach stresses direct assistance to ensure minimum levels of an individual's consumption of food, shelter, and clothing. It seeks to extend to the poor access to essential social services, including health care, sanitation, clean water, and opportunities for basic education. The basic education to be contained in the "basic needs" approach might be conceptualized according to three criteria: clientele - basic education seeks to provide opportunities for people who are either being inadequately served by schools or not served at all; content - basic education promotes learning that is

functionally-oriented and seeks to develop knowledge and skills related to nutrition, health, productive activity, civic participation, cultural appreciation, and literacy and numeracy; delivery - basic education is delivered mainly through primary schools and through the range of nonformal education activities.

Relationship of the Project to Basic Needs

The design of this project is fully consistent with the "basic needs" approach. The project contributes to a larger commitment to redirect primary education toward content that is practical and related to the social, economic, and cultural possibilities of Swazi life; appropriately, this effort has a largely rural and functional bias. The design and use of the curricular materials being provided through the project appear likely to encourage a greater participation of both pupils and teachers in the education process and in wider community activity.

The choice of primary education as a means of delivery of basic education is appropriate, given the present structure of school enrollment and the GOS's intentions to attain universal primary education by 1985. The rate of expansion of primary enrollment in recent years and the direction and magnitude of other current initiatives seem to make this goal realistic; some people believe that it may be achieved before 1985. The important aspect of this expansion is the sensitivity to social demand, which will lead to the widening of access to minimum education opportunities for the rural poor.

In 1976, the primary school enrollment of Swaziland of 92,721 was made up of about 68% of the 6-12 age group population - a figure considerably better than the average for Africa as a whole. According to Government projections, by 1986, if universal primary education becomes a reality, there would be about 141,000 pupils enrolled in primary school. Applying the present modern/traditional ratio in the absence of more precise data, this would mean that about 127,000 children living in rural areas would be affected by the project's activities.

Participation of Women and Girls

The project is consistent with the goal of promoting the participation of women and girls in development. Benefits would accrue at three different levels:

- primary school population: enrollment data for 1976 indicates that 49.3% of primary school pupils were girls
- primary school teachers: the population of primary teachers, who will indirectly benefit from the materials and directly benefit from the in-service activities, is 78% female
- professional staff, PCU: currently 6 out of the 14 professional staff members of the PCU are women

III. C. TECHNICAL FEASIBILITY

This section of analysis will cover (1) technical aspects of the project that have worked well in Phase One and will therefore be continued, (2) revisions proposed in order to resolve technical problems incurred during Phase One, and (3) proposed plans for the transition during this project phase from pilot-school to nationwide implementation of the curriculum.

(1) Continuations

The basic curriculum development methodology proposed for Phase One still appears very suitable, and in many respects, deficiencies in project operations to date have appeared not because the plan was faulty but because for various reasons it has not been fully implemented. The methodology that will be continued during Phase Two is that of deriving instructional objectives from national educational goals, and of providing lessons and materials that meet these objectives. Lessons are incorporated into modules that, in turn, are integrated into school term-length and school year-length sets. This methodology is theoretically sound, has been demonstrated effective under conditions similar to those in Swaziland, and has been accepted to date by the MOE, the education community and the PCU.

The pilot-testing of materials in 16 selected schools throughout the country has proven to be a feasible means of introducing the materials and gathering information for their revisions. Pilot-testing arrangements allow for availability

of "subjects" for various evaluation purposes, and for flexibility in testing exercises. Pilot-testing has also freed the PCU from facing the logistical problems of nationwide implementation until a time when it is prepared to do so.

Distribution of materials is facilitated through the establishment of four TIDC's in the Manzini, Lubambo, Shiselweni and Rhooho Districts. This arrangement, although only now at the point where the TIDC's are built and teacher leaders assigned to them, is planned as a first step in promoting a "spread effect." The Centers will serve as materials distribution and teacher education centers in outlying areas of the country, and as reproducible models of similar centers in other areas to be built by the GOS in future years. Some difficulties have been experienced in transporting people and supplies between these Centers and the PCU in Manzini and between the Centers and the schools they serve.

Training of Swazis to staff the PCU is taking place through both on-the-job and participant training programs. On-the-job training is still the best method of preparing individuals to manage curriculum development while, at the same time, a functioning system is being installed. Problems have arisen during Phase One because the on-the-job training strategy was inappropriate; with a major change in this strategy, the effects of on-the-job training are expected to improve noticeably (see following discussion of proposed revisions).

Participant training was planned to take place both in Swaziland and in the U. S. under the auspices of the U. S.

contractor (EMU). Training in the U. S. of PCU staff members earning Bachelor's and Master's degrees is underway, although its commencement was delayed (see Implementation Schedule, Annex J).

It is too soon to measure the payoff to the project of individuals who have had participant training overseas. In any case, it is necessary to upgrade staff members through degree-granting programs to raise the professional level of the PCU. No degrees in primary curriculum development are presently offered in Swaziland.

The in-country participant training proposed in the original plan (see Prop, Annex F, p. 29) has not been implemented because of insufficient U. S. advisors who had time to conduct courses. This situation, however, will be remedied by the increase in U. S. technical assistance. In-country training possibilities will be increased since the absence in the PCU of staff members overseas has created great gaps (see following section on proposed revisions) in human resources available to the PCU.

PCU facilities and commodities are in place and adequate, except as noted in the previous section calling for additional inputs.

(2) Revisions

Revisions proposed to strengthen the project are related to three perceived areas of weakness: the curriculum design and approval process, staff training, and manpower. The design and

approval process will be augmented and strengthened in two ways.

First, periodic workshops held by the PCU for teachers, district administrators and teacher educators throughout the country will be scheduled at appropriate times in the development of each grade level curriculum.

These will ensure the broad participation of educators in the development process and increase the manpower available to design curricula and write materials. Second, the curricula and materials procedures within the MOE will be simplified, agreed upon by all parties involved, and implemented.

Staff training activities will be increased. First, the Curriculum Resource Center will be augmented in order that materials can be solicited from other African nations, the U. S. and elsewhere for adaptation to Swaziland for use in designing Swazi materials. Having access to these materials is expected to be a significant support to the PCU staff. Second, the U. S. technical assistance staff will be increased from 6 to 10, including the addition of four primary curriculum designers with relevant subject-matter specialization, (i.e. language arts, math/science, environmental studies, and practical arts). The role of U. S. advisors will change from that of "on call" editors to one of active collaboration, demonstration and teaching, especially in the early years of the project. Finally, participant training activities will shift in balance over the life of the project from U. S. training to in-country training, with increased opportunities for academic courses and credit through the

University of Botswana and Swaziland, courses offered by the U. S. staff at PCU with credit available at a U. S. university, and correspondence courses through that university (e.g. EMU). In addition, PCU staff members, through Swaziland's membership in the African Curriculum Organization, will have opportunities to visit other curriculum development programs in Africa and to attend workshops and seminars elsewhere on the continent.

Current manpower shortages will be reduced through the addition of 12 Swazi professional staff and 4 U. S. technical assistants. The agreement of the GOS to provide posts for these staff members (as well as for those now working at the PCU on a temporary basis) will be a condition precedent to the signing of the project agreement (see Section G.2.). The provision of 10 U. S. advisors will be part of a contractual agreement with a U. S. university. In addition, staff members will be more productive as a result of augmented training activities. Finally, the periodic design workshops involving administrators, teacher educators and teachers will increase the pool of available short-term designers, as well as contribute to the large task of familiarizing the education community with the new curricula.

(3) Transition Phase

The transition from pilot-school testing to nationwide implementation of the curriculum will commence in Phase Two -- approximately January 1981, depending on the course of events during the final months of Phase One. This transition will entail commercial

publication of materials, distribution of materials, and, throughout and after the project, their maintenance and revision.

The first project plan (see Prop, Annex F, pp. 36-38) calls for GOS funds to cover publication costs. Funds for publication of materials for Grades 1, 2, 3 and 4 (which will occur during the life of the project) are budgeted for by the GOS.

Although a materials distribution plan must be worked out in detail by the PCU staff and revised throughout the project on the basis of trial and error, the basic arrangement will be as follows: primary school headmasters who are presently budgeted for annual trips to the MOE office in Mbabane to pick up materials will instead be routed to the TIDC in their respective districts for materials. The materials publisher will deliver materials directly to these 4 Centers.

The resupplying of materials will be done in conjunction with the administrative arrangements of the TIDCs and the District Education Offices to which they are attached, and, where convenient, with the in-service teacher training activities sponsored by the MOE through teacher training colleges. These arrangements will have to be worked out in detail by the PCU as logistical problems are tackled.

The mid-project evaluation in 1981 will provide information about the 1980 trial run of materials distribution in planning and budgeting for a continuous implementation system which is to be eventually controlled by the MOE.

III. D. ADMINISTRATIVE FEASIBILITY

This section of analysis will cover (1) the administrative components of the project that have proven effective and will be continued, (2) revisions in the plan proposed to solve administrative problems, and (3) organization charts of the PCU and its proposed relationship to the MOE.

(1) The area of most difficulty during Phase One has been administration. Nonetheless, the central administrative arrangement works well: the responsible administrator is the Director of the Project (a Swazi), who works in close collaboration with the U. S. Chief of Party advisor. Also, the differentiated functions of the PCU staff into materials design and preparation, production, evaluation, and teacher education are operable, with the provision that the Director and Chief of Party take on a more explicit management function, coordinating the activities of these four other components.

(2) Significant revisions are proposed in the administrative arrangements in order to overcome what has appeared to be a severe lack of project leadership and inadequate MOE support.

(a) As a condition precedent to signing the Project Agreement (see Section G.2.), the GOS will establish 27 professional posts and 13 support staff posts to the PCU. This accomplishment will demonstrate the GOS's commitment to the continuation of the project, and the MOE's ability to procure the necessary resources. Posts assigned for professional staff will lead toward a reduction of manpower shortages at this level (assuming they can be filled).

The assignment of permanent posts to staff members now working on a temporary status should ease the low morale of those who have been working to date under insecure employment conditions, thus creating problems for the project as a whole.

(b) The status of the PCU within the MOE will be changed so that the PCU Director reports to the Chief Inspector Primary. This revision has already been accomplished, thus moving the Director from a position of subordination to the Principal of William Pitcher College (with no direct link to the Chief Inspector Primary) to one of proximity with the higher levels of MOE officials (see following organization chart). This revision will strengthen the MOE's means of direct support to the PCU. The MOE will be in a good position to back up the PCU Director in the management of PCU staff and operations, and to support him/her in negotiations and collaborative operations with related institutions, including the District Education Officers, Inspectors, and teacher training college staff members.

(c) The management component of the PCU (Director, U. S. Chief of Party, Administrative Officer) will have explicit responsibility for internal project management and leadership functions, thus increasing the coordination among project component activities, and reducing the occasional lack of commitment among support staff.

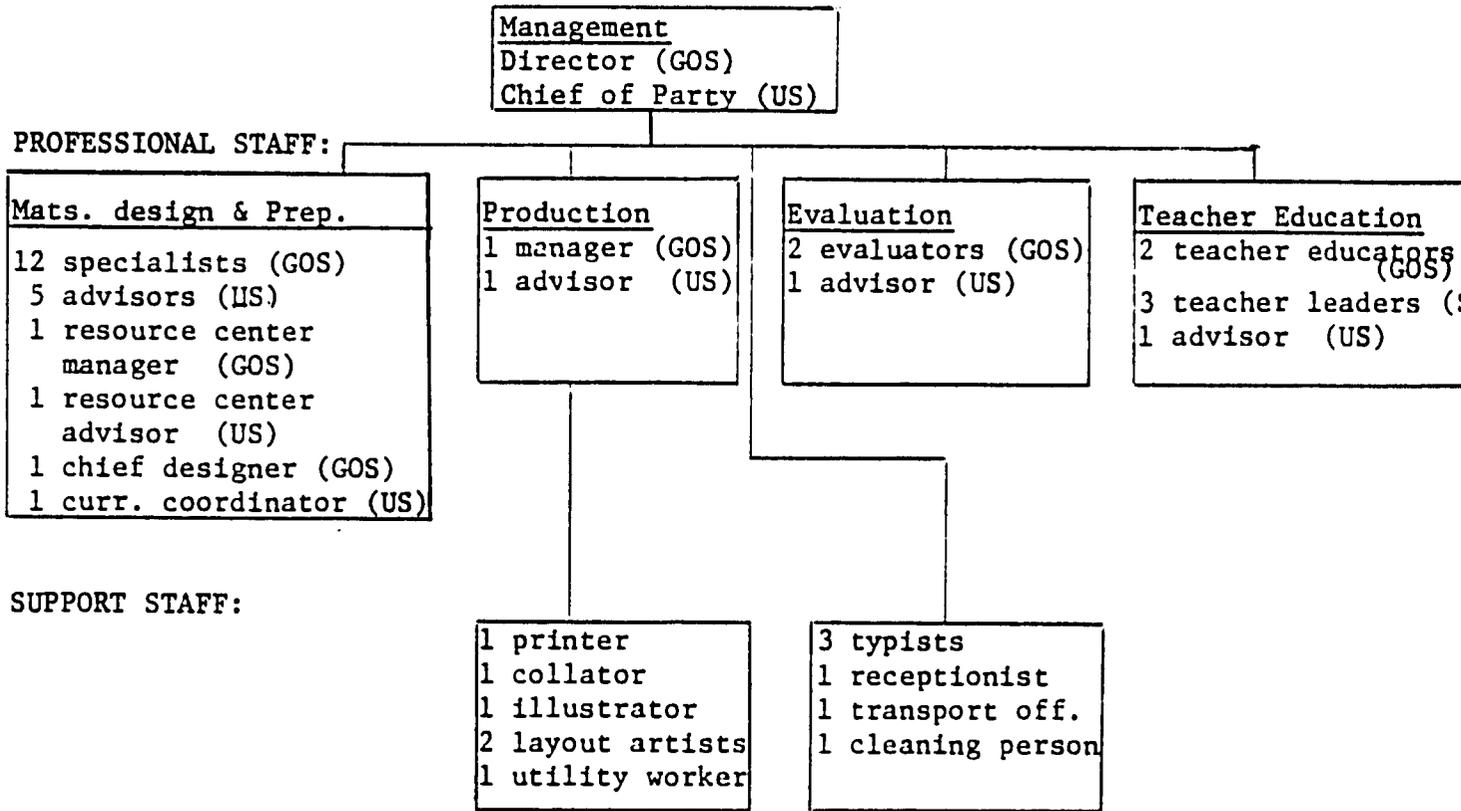
(d) The management component of the PCU will have explicit responsibility for external project negotiations and linkages, thus improving communications between the PCU and the MOE. Since

the time and energy devoted in Phase One to getting facilities and commodities in place are no longer required by the management, they will be able to spend more effort in establishing and maintaining linkages with other institutions in the education community and Swaziland development activities.

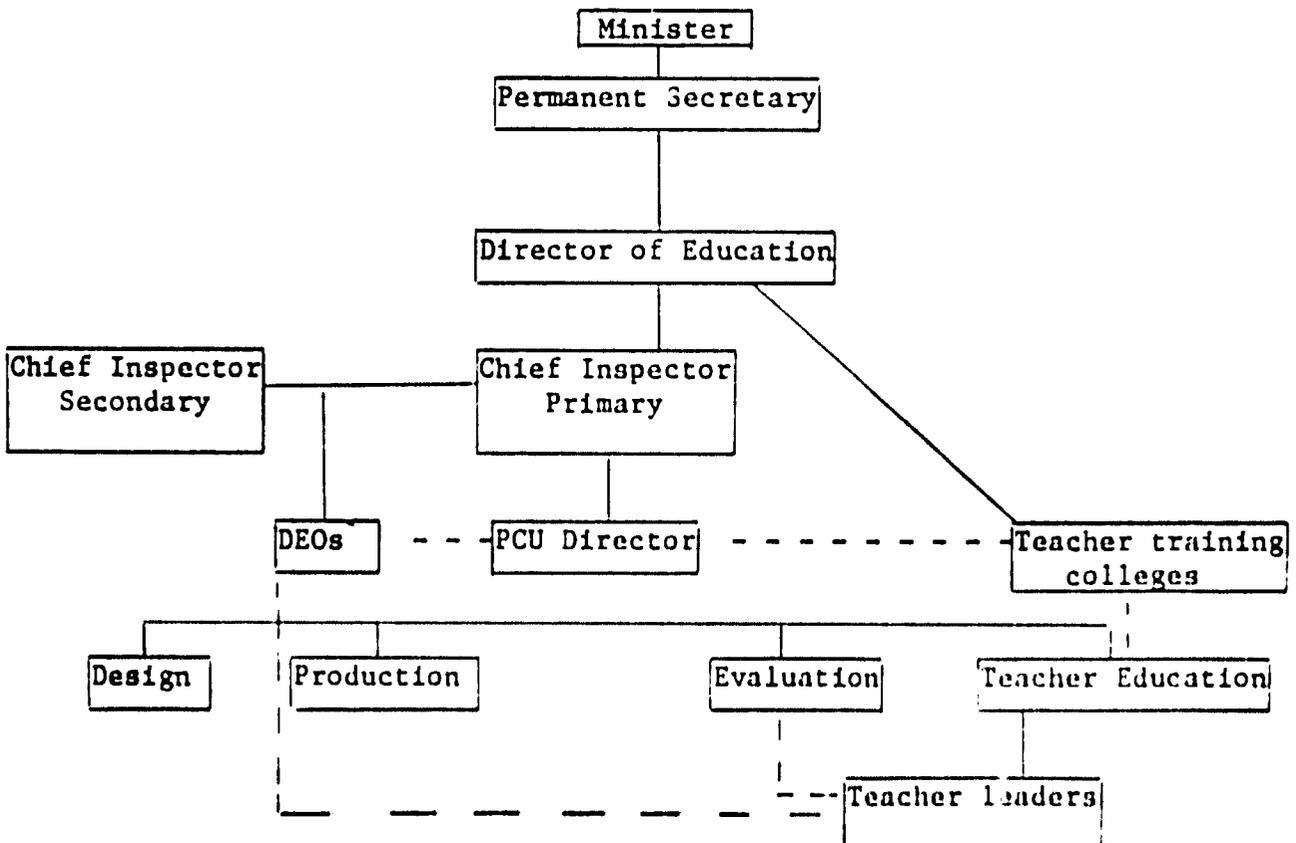
(e) This project has been planned in conjunction with the simultaneous planning activities of the UNESCO In-service Teacher Training Project (Phase Two) at William Pitcher College. Therefore, discrepancies between the goals and strategies of these two projects will be minimized, and the necessary collaboration between the two functions of curriculum development and teacher training will exist. The eventual formalized integration of the primary and secondary curriculum units within the MOE will contribute to the growing compatibility of these two services. The PCU management will play an active role in carrying out this integration.

The two units that will administer the primary curriculum development project are the PCU and the MOE (see organization chart). The PCU was activated in 1974 and by now has become an established entity in the educational system. Since 1975, its budget has been furnished with funds from the GOS, AID and the IBRD. Curriculum development activities constitute 1% of the total MOE budget. Organizational patterns for staff training, curriculum development and materials production are well established, and facilities, equipment and supplies are sufficient, except where requested in this paper. When additional

(3) PCU organization



(4) PCU organizational status within the MOE:



PCU posts are established and filled, as has been agreed upon by the MOE, and staff members trained as foreseen in this paper, the PCU will be capable of functioning without external aid as an integral part of the Swazi educational system.

The MOE has existed since the initiation of the independent Swazi government in 1968, and has administrative, financial and academic control over the nation's education system. The central staff of the MOE totals about 100 of whom about 35 are professionals. It is administered by the Permanent Secretary for Education under the direction of the Minister. The primary schools are administered by the Chief Inspector Primary. In each of the four districts of the country--Hhohho, Manzini, Shiselweni and Lubombo, there is a District Education Officer responsible for the administrative and professional supervision of primary schools and related activities. Each district houses a TIDC, the main activities of which are supported by the PCU. In addition to primary school activities, the Ministry supports activities in secondary, higher and nonformal education and in educational planning.

Due largely to the relatively small size of the government, population and territory of the nation, the Permanent Secretary maintains close working relations with all MOE officials, and is aware of all MOE activities, including those of the PCU.

III. H. EVALUATION PLAN

The external evaluations of this project will be, first and foremost, measurements of the PCU's progress toward developing full institutional capability of primary curriculum development activities. This capability is more complex and far reaching than mere materials production, and includes progress in evaluation, teacher education, and collaboration with the education community at large, particularly the MOE and District Education Offices.

The project objectives toward which progress will be measured by external evaluators are the following:

- (a) staff trained and on the job;
- (b) Curriculum Resource Center adequately stocked with prototype and model materials;
- (c) curricula designed, drafted and tested;
- (d) materials distributed and in use in schools nationwide;
- (e) TIDCs operating with full-time activities in teacher assistance;
- (f) demonstrations of active collaboration between PCU and
-MOE (Chief Inspector Primary, Director of Education, Permanent Secretary, those responsible for secondary curriculum development, those responsible for teacher training),
-teacher training college personnel, and
-TIDC and District Education Office personnel;

- (g) active participation in relevant African Curriculum Organization programs;
- (h) materials produced on schedule;
- (i) evaluation and reporting system functioning in a timely and useful fashion; and
- (j) curriculum and materials approval system being used by PCU and MOE.

Objectively verifiable indicators of progress toward these objectives are stated in the Logical Framework (see Annex K) as are the Means of Verification and Planning Assumptions. The following table summarizes four important readily quantifiable indicators of progress toward project targets. These baseline data (June 1979) and targeted outputs are drawn from the Implementation Schedule (see Annex J).

	June 1979	June 1981	June 1983
PCU staff on the job			
PCU staff in training			
Materials in schools			
Materials in draft			

Causal factors in the design of the project are described in the Project Description (Section II. B.) and the Project Strategy (II. C.)

Two external evaluations are planned: one mid-project in

mid-1981 and the other at the end of the project in 1983.

A main purpose of the mid-project evaluation will be to assess the capability of the PCU to take on additional work. As a result of this evaluation, the project budget may be revised (i.e. expanded) to provide for additional resources if those available have not been adequate. If, on the other hand, the interim (1981) targets are being met, plans should be made to expand one or more of the following project activities, all of which will have been implemented only on the scale of pilot testing during the first two years of Phase Two:

- (a) periodic curriculum design and materials writing workshops for educators (e.g., MOE headquarters and district level officials, teacher trainers, teachers) as part of the curriculum development process;
- (b) extension of the Curriculum Resource Center into audio-visual materials production, production of teaching aids from indigenous materials, and/or collection and organization of materials from other curriculum projects (e.g., agricultural education) in Swaziland, from which donor assistance has been completed;
- (c) revision of the materials distribution system in a manner that requires additional inputs and therefore financing. (The distribution system will have been tested on a full scale only in 1980, and therefore may require significant revision.); and

(d) introduction of primary school students' needs analysis and more elaborate research on the effectiveness of the curricula in the schools. This would entail an expansion of evaluation activities beyond that of student examinations for the purpose of pilot testing materials.

The June 1983, end of project evaluation will be summative; the final point of progress toward outputs stated in the Logical Framework will be measured.

The project will be evaluated on the basis of criteria stated in the Logical Framework and on revisions implemented subsequent to the mid-project evaluation. It is not planned that the AID Project will continue beyond June 1983, unless the planned resources have fallen significantly short and/or the assumptions stated in the Logical Framework have proven to be invalid.